THURSDAY, MAY 10, 1900.

MECHANISM, IDEA, OR—NATURE?

Naturalism and Agnosticism. By James Ward, Sc.D. 2 vols. Pp. xviii+302 and xiii+291. (London: A. and C. Black, 1899.)

THE distinguished writer of the well-known article on psychology in the "Encyclopædia Britannica" could not but be sure of a welcome for any contribution towards the establishment of a world-formula that he found it in him to offer. Prof. James Ward displays analytical power of quite first rate quality, even when he uses it perversely. He has an insight more than common into the bearings of scientific methods and naturalistic speculations, even when he is disputing their competency or restricting their range. If his lucidity is that of the successful teacher, his earnestness and his often eloquence mark the great one. Finally, in meeting the apostles of naturalism within the jurisdiction of their own categories, and without the mystification of an alien esotericism, he has set an example of hopeful augury. "Naturalism and Agnosticism" is for these reasons one of the books that must count.

On the other hand, while future attempts at construction cannot neglect the reasonings of this very considerable work, Prof. Ward's is not a mind "to nestle in." His attack upon Naturalism with Agnosticism must, we venture to think, be held to have failed, his conclusion to Spiritualistic Monism to be illicit.

Prof. Ward's book embodies his Gifford lectures, in defence of theism, delivered at Aberdeen in the years 1896 to 1898. As they "take it for granted that till an idealistic (*i.e.* spiritualistic) view of the world can be sustained, any exposition of theism is but wasted labour," they are in effect a critique of Naturalism and Agnosticism singly and together, followed by a brief development of a Monism of Spirit, in whose interests they are assailed. Their "demurrer" to theistic inquiries is ruled out, because they themselves, it is claimed, have failed.

We may pass the question whether a Naturalism that dares to say that it sees no way of access to knowledge of a certain kind, "demurs" to theism in any manner in which "spiritualistic monism," with its implicit pantheism, does not, and consider rather the development of Dr. Ward's attack on Naturalism. He tries a fall with it in three fields—Mechanism, Evolution taken as the working of Mechanism, and Psychophysical Parallelism as the device by which the mechanical view disposes of the importunate facts of consciousness. It seems to follow that unless Naturalism must be identified with Mechanism our author's thesis fails.

As regards Mechanism, Dr. Ward disclaims any pretensions to specialism in physics, but he shows such intellectual communion with the studies that are the great glory of his university, that he fully sustains his right to be heard. His fundamental point is the abstractness and hypothetical character of modern physics. He shows how they pass from the perceptual and actual into what has been happily called "conceptual shorthand." He finds mathematical physics "idealistic" in their procedure—epistemologically, we presume, not ontologically—and he claims that they do not set before us "what verily is and happens." Matter, mass, energy—what are these? We seem driven to modify our ideas of them again and again, till we end either in Nihilism, with, for instance, Kirchhoff, or in some highly artificial formula, such as, *e.g.* the "hydrokinetic ideal" of Lord Kelvin. From the point of view of logic, the inverse methods of abstract physics are such that our ultimate principle will not necessarily be a *vera causa* in the sense of one who can say *hypotheses non fingo*. If, then, we accept it as ultimate reality, we are simply Neopythagoreans. Can we construct from it a cosmos of qualitative variety? much less an organic world.

Yet, starting from mechanism, such an attempt at edification has been made by Mr. Herbert Spencer. To him the sciences in their evolutionary gradation appear to offer a closed system, a polity, a synthesis which is philosophy. The absence of the two volumes essential for the bridging of the gap from inorganic to organic, and especially of that famous chapter in which, "were it written," the transition is actually made, puts Mr. Spencer's high claims out of court. But further, by playing off dissipation of energy against conservation, the doctrine of "First Principles" can be shown to be inadequate. And Mr. Spencer's demand for instability of the homogeneous at the start, instability of the heterogeneous at the finish, shows his construction to be arbitrary. To get evolution to the point of a working process, we need, says Dr. Ward, a teleology—"evolution with guidance," or plan, or purpose. And this to our author implies something incompatible with mechanism, mind in some transcendental sense, god. There is perhaps a lacun in the inference, but so comes the god into the mechanism

But if mind is thus to be, at the very least, the predominant partner in the world-system—it is to be much more—Dr. Ward must get rid of Psychophysical Parallelism. Psychosis cannot be epiphenomenon, nor, to use Huxley's unfortunately loose phrase, a "collateral product." Nor can man—though this is not the same thing—be a conscious automaton. We cannot have any implication of "the impotence of mind to influence matter." We must admit "interaction," because "invariable concomitance and absolute causal independence are incompatible positions."

But if there is not only room for god, as Brahma so to speak, at the beginning, but also both room for and need of, as it were, Vishnu, throughout the working of the mechanism, to save it from nihilism, to supply "guidance" to the evolutionary process, to infuse new energy, or, as "the sorting demon of Maxwell," restore wasted energy, to account for life, to work as immanent sustaining force throughout, we need only to refute dualism in favour of a "duality of subject and object," and the way is clear for idealism.

But is this so? Is naturalism really refuted? Is neutral agnosticism illicit, or, in the alternative, so unstable, as to be necessarily materialist or mechanical in bias? Or has Dr. Ward haply shown that certain physicists, like certain idealists, have no right to their creed? Those, namely, who fail to take their symbols as formulæ, abstractions, averages, or to see that where explanatory, the range of their power of explanation is limited. Or has he perhaps overthrown much in the hasty constructions

of Huxley and Mr. Spencer, made in the first flush of the reconnaissance in force of militant science, but left Naturalism the while untouched?

Dr. Ward's polemic against Mechanism is, we take it, justified with some qualifications, as against those who hold that the synthesis of naturalism is complete, and that the law of its continuity implies the resolution of all phenomenal realities into terms of the modern substitutes for matter in motion, conceived of as having no qualitative but only quantitative determinations. Again, the unnecessarily contemptuous criticism of Evolution as the working of mechanism is valid against Mr. Spencer's "First Principles." Mr. Spencer's mastership happily does not rest upon the soundness of the too early stereotyped foundation, nor on the claim that the edifice is complete to its coping-stone. Further, if "science" is at the standpoint of the materialism of Laplace, or even if it has taken the Huxley of the early sixties, with his undoubted materialist bias, as guide in all things, it will have to retrace the steps it has taken in its advance towards a creed. If it abstracts the known from the knower, and maintains that the act of abstraction makes no difference, it can be convicted of positing a phenomenal world *per se*. If, in the faith of continuity, it says that the inorganic, as it is conceived by mathematical physics, not only conditions but also constitutes the organic, in the sense that we must not, in order to explain the organic, look for anything in the inorganic other than those mathematical determinations of which alone abstract physics take account, then it is against that long patience which is the chief of discoverers, and is attempting an "anticipation" of experience. If it treats regulative as constitutive principles, and attributes agency to formulæ, it is guilty of what we had thought was specifically the idealist's fallacy. But must Naturalism do these things?

We might instance Dr. Hodgson's experientialism and Prof. Münsterberg's transformism among types of naturalism able to "let the galled jade wince." Surely, too, the specialist, finding in his own department, recognised as partial and abstract, the immanence of law, and learning that his colleagues in other departments find law there too, and so throughout, is justified in believing that out of nature—human nature, and specifically the nature of human thought included—the solution must come. Unable to find a mediating term between his "non-matter in motion" or what not, and psychic process, he accepts the "parallelism," with hypothetical connection as co-aspects or, since Prof. Ward, despite of Kant and Mr. Bradley, prefers the causal relation, co-effects of a unitary system. And if to the knowledge of this he sees no road from the human standpoint, wherein lies the illicitness of the union, always stigmatised by Dr. Ward as an evil *liaison*, between his positive treatment of his facts of science and his agnostic neutral attitude, without bias either materialist or spiritualist, towards the ultimate real?

Dr. Ward thinks, in terms of the quotation on his title-page, that law implies teleology, and that teleology implies spiritualistic monism. We do not see the steps by which he establishes this latter point. And he thinks neutral agnosticism unstable in the direction of one bias or other. We do not see why.

Surely in taking Naturalism "to designate the doctrine that separates Nature from God, subordinates Spirit to Matter, and sets up unchangeable law as supreme," Dr. Ward has imposed upon it three characters—the first an ambiguity, the second a mechanical bias which is not essential to it, the third its pride, or what it would repudiate, according to the meanings attached to the words "law" and "supreme." It is he who has conjured up what, by a curious slip, he calls "a novel Frankenstein."

We cannot accept Dr. Ward's criticism of psychophysical parallelism. Mr. Stout, who also "carried Cambridge to Aberdeen," is to the point here. He treats it as the best mode of formulating the facts, but needing for explanation something beyond itself. That he finds this something in an idealist metaphysic makes his witness the more impartial. Prof. Ward hankers after "interaction," or at least "activity of mind." The first, in the form in which he demands it, involves him, to our thinking, in a dualism, which is not a duality of subject and object, and for which his own "refutation of dualism" is enough. The second is spiritualism, which, if monistic, precisely inverts material monism and makes man a conscious automaton from the other point of view.

We may note in this connection a sceptical argument of Dr. Ward's. In what seems to be a misapplication of the formula of "introjection," which he applies elsewhere with signal success, he insists that my *psychoses* are experience only for me, my *neuroses* experience only for the physiologist. The inference surely must be to solipsism or to nothing. Does Dr. Ward mean to deny the accompaniment of my psychical phantasmagoria with brain change?

The quality of Dr. Ward's idealism is perhaps to be doubted. Where does he get the "voluntary movement" which is essential to our perception of space? We are not quite sure that his "intellective synthesis" gives him a right to a world of "intersubjective intercourse" at all. It is, to use an illustration of his own, a case of genii each hermetically sealed in his bottle, but collectively at large. Or it is natural realism. Again, his mental "activity" is in collision with the teaching of Mr. Bradley.

Dr. Ward must have creative agency for thought if "nature is spirit" (though if this be so in a plain, straightforward sense, then why naturalism is wrong from the point of view of spirit is hard to see). But all thought that we know is accompanied with body, and does not create. Huxley "quite rightly refuses to convert invariable concomitance into necessary conjunction." If that is so, what becomes of Dr. Ward's formula as to parallelism and causal independence, apart from his fallacious use of it to establish interaction, when the "community" need not imply more than that they are aspects or, if Dr. Ward will have it so, co-effects of the same real?

Prof. Ward declines to allow analysis to be adequate unless you can find your way back to complete synthesis. Judged by this test, what becomes of Spiritualistic Monism? Indeed, the double edge of Dr. Ward's arguments is one of the marked characteristics of his book. What is good for "non-matter in motion" is good for Green's "relations without *relata*." What is good for Lord Kelvin's Plenum is good for Mr. Bradley's Reality. A dialectical process, which must take place in a time considered to be riddled with self-contradictions and *aufgehoben*, is analogous to the form of evolution that

Dr. Ward eviscerates. In truth, mechanism inverted is spiritualistic monism. The naturalism not yet fully formulated, which has allied itself provisionally and in no way illegitimately with neutral agnosticism, is happily neither materialism nor idealism. H. W. B.

THE EVOLUTION OF EUROPEAN PEOPLES.

The Races of Europe: a Sociological Study. By William Z. Ripley, Ph.D. Pp. 624; and bibliography, pp. 160. 222 portrait types; 86 maps and diagrams, and other illustrations. (London: Kegan Paul, Trench, Trübner and Co., Ltd., 1900.)

IT has been reserved for an American anthropologist to give us the first comprehensive work on the races of Europe, a subject which is as fascinating as it is important.

The first two chapters of this comprehensive work deal with general questions, among others the problem of environment *versus* race in determining ethnic characters is touched upon, and the error of confusing community of language with identity of race is pointed out; nationality may often follow linguistic boundaries, but race bears no necessary relation to them.

As the main arguments in the book are derived from a consideration of three main sets of comparative data—the head-form, hair- and eye-colour, and stature—it was necessary to discuss their value, and in doing so the author has passed in brief review various races of man in all parts of the world. As the shape of the head, that is the length-breadth, or cephalic index, is not liable to be affected by environment as pigmentation appears to be, and stature certainly is, it takes the first rank as a criterion of race, the colour of the hair and eyes comes second, while stature is relegated to the third rank.

Dr. Ripley states as a proposition that is "fairly susceptible of proof":

"The European races, as a whole, show signs of a secondary or derived origin; certain characteristics, especially the texture of the hair, lead us to class them as intermediate between the extreme primary types of the Asiatic and the negro races respectively."

Surely the wavy-haired group of mankind has as much a claim to be considered primitive as are the frizzly- or the straight-haired groups. That certain characters are intermediate does not imply that a mixture has taken place. In some respects each of these three main groups of mankind is nearer to, and in others further from, the higher apes than the other two groups; the wavy character of the hair of the Europeans, for example, is probably an ancestral feature that has been retained by them and the other Cymotrichi.

The earliest and lowest strata of population in Europe were extremely long-headed, and the author regards the living Mediterranean race as most nearly representative of them. He considers it highly probable that the Teutonic race of Northern Europe is merely a variety of the primitive long-headed type of the Stone Age; both its distinctive blondness and its remarkable stature having been acquired in the relative isolation of Scandinavia, through the modifying influence of environment and artificial selection. It is certain that, after the partial occupation of Western Europe by a dolichocephalic type in the Stone Age, an invasion by a broad-headed race of decidedly Asiatic affinities took place. This intrusive element is represented to-day by the Alpine type of Central Europe.

It is the play of these three groups, Teutonic or Nordic, Alpine and Mediterranean, upon one another, together with the effect of environment, the potency of which varies locally, occasional isolation and sexual selection, which has resulted in the complexity of the ethnology of modern Europe.

Dr. Ripley deals with the various countries of Europe, and endeavours to unravel the anthropological history of each. It is a humiliating fact how often political or religious bias has crept into ethnological arguments; but our author approaches the subject with an unprejudiced mind, and looks at the problem from a broad point of view.

The most remarkable trait of the population of the British Isles is the uniformity of its head-form; the prevailing type is that of the long and narrow cranium, accompanied by an oval rather than broad or round face. The length-breadth indices all lie between 77 and 79, with the possible exception of the middle and western parts of Scotland, where they fall to 76. This index alone proves little in the present instance, and recourse must be made to other characters, such as hair-colour and stature.

These distinctly prove a dual element in the population, one of which is the persistent Neolithic stock, a branch of the Mediterranean race; the other is the northern race, composed of Saxon, Danish and Norwegian elements. Immigrants belonging to the Alpine race, not pure, but as a mixed people, overran all England and part of Scotland, bringing with them bronze implements, the art of pottery-making, and other cultural advantages; but their physical influence was transitory, for at the opening of the historic period the earlier types had considerably absorbed the new-comers, and the Teutonic invasion completed their submergence. Dr. Ripley, however, is scarcely correct in stating that the Alpine immigrant type never reached Ireland, as traces of them have been recorded (*cf. Proc. Roy. Irish Acad.* (3), iv. 1898, p. 570). The distribution of stature bears out a distinction between the Goidels and the Brythons; but the high stature found in South-west Scotland is anomalous, and requires further study.

It is impossible to deal with all the controversial problems in the book, but an author can generally be gauged by his treatment of critical cases, and of these it is no exaggeration to say that Dr. Ripley always takes a sane position. The origin of the Etruscans is a case in point. The different views of various authors are briefly stated, but the author inclines to Sergi's theory that the Etruscans were really compounded of two ethnic elements, one from the north bringing the Hallstatt civilisation of the Danube Valley; the other Mediterranean, both by race and culture. The sudden outburst of a notable civilisation being the result of the meeting of these two streams of human life, the author appears to have overlooked the probability of a similar history for early Greece.

A whole chapter is given to a discussion of the Basques, and Collignon's deductions are adopted. The French